

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

Beam

DEPARTMENT OF BIOLOGICAL SCIENCES

2/20/50

Dear Josh,

Am still thinking about in the theoretical
netter surrounding Proteus. Its death curve
(X-Ray) like that of coli is single hit
as you know. The fact of two chromatic bodies
in the cells of these bacteria would (as you
suggested in your review) lead us to expect
a two hit curve. Question: Are the two bodies
in the bacterial cells the parts of just one
functional "nucleus", or is killing in these cases
largely due to the production of dominant lethals -
perish the thought? Answer! : let's run a killing
curve on your ever sporting heterozygote. Would
it be suitable for this kind of work i.e. are
the cells quite discreet & easily handled so
long as you keep them on a minimal medium?

The curves I now have of diploid & haploid
yeast (two + one hit exp.) & mononuclear &
Hemosporea (ca. 6 hit) make me quite confident
that death in these organisms is due to
recessive lethal mutation (or the equivalent) and
that the Proteus & B/r phenomena are of

another sort. If bacterial death with radiation
is like that of these others we have every
reason to expect a multiple hit relationship.
Are you or anyone in your lab planning to
do this? If not I would be very
pleased to undertake it. It would fill
out the contours of my problem and should
be of considerable interest to you as well.
Let me know, eh?

Best regards to yourself & Father
Ed & Spunk send theirs.

Sincerely yours.

Carl.